

Plunger-in-Needle Syringe Array Patent Pending

0.5 μ L - 10 μ L Capacities

PRODUCT DATA

High precision, micro volume syringe array enable the dispensing of volumes ranging from 5nL-10 μ L into high density 96, 384 or 864 well formats.

These plunger-in-needle arrays are available in syringe capacities ranging from 0.5 μ L-10 μ L. They can be configured to suit 80cm² 96, 384 and 864 well plate formats. Other plate configurations are available on request.

The arrays can be constructed into modules for ease of installation and maintenance. SGE can build modules to your instrument specifications.

APPLICATIONS INCLUDE

- High Throughput Screening
- High Throughput Dispensing
- Combinatorial Chemistry
- Biological and Chemical Research
- DNA Analysis

864, 5 μ L array syringe



SPECIFICATIONS

- Available in 96, 384 and 864 well configurations for 80cm² plates
- Syringe capacities available include 0.5 μ L, 1 μ L, 5 μ L and 10 μ L
- Needle diameters range from 0.47mm OD to 0.71mm OD (Needle diameters dependent on syringe volume)
- Needle tips designed to suit application requirements
- Conceivable dispensed volume ranges 5nL to 10 μ L
- Typical dispensed volume reproducibility:
5nL-100nL CV ~ 6-10%
100nL-10 μ L CV ~ 2-6%

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MODULE CONFIGURATIONS (suggested)

1. 96 Well Plate Configuration

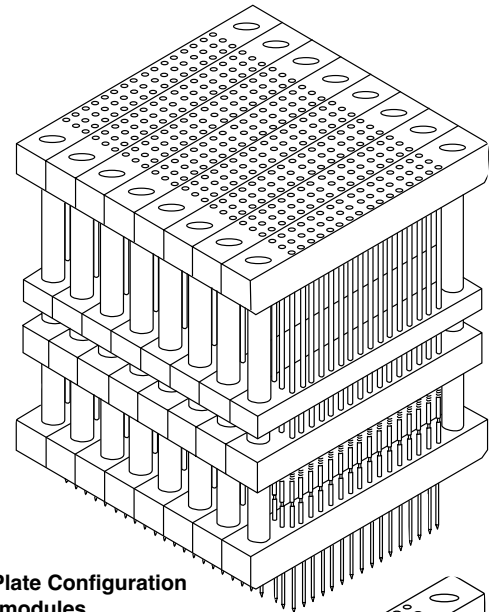
- Total Array Size = 8 x 12 syringes
- Required Needle Spacing = 9mm
- Module Size (Suggested) = 4 x 8 (32 syringes)
- Total Number Modules for 96 = 3

2. 384 Well Plate Configuration

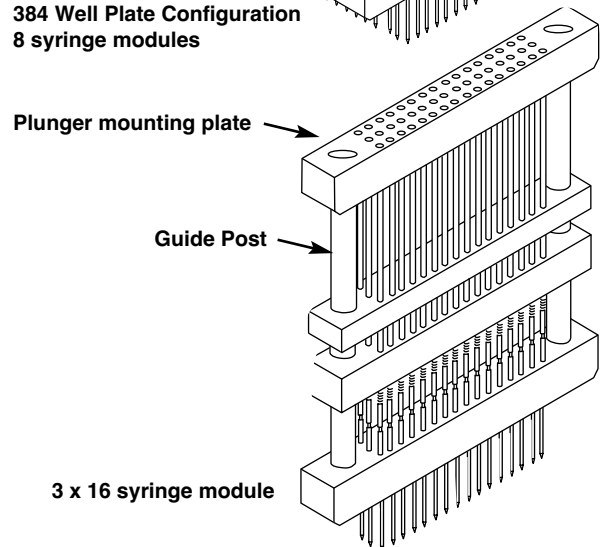
- Total Array Size = 24 x 16 syringes
- Required Needle Spacing = 4.5mm
- Module Size (Suggested) = 3 x 16 (48 syringes)
- Total Number Modules for 384 = 8

3. 864 Well Plate Configuration

- Total Array Size = 24 x 36 syringes
- Required Needle Spacing = 3mm
- Module Size (Suggested) = 4 x 24 (96 syringes)
- Total Number Modules for 864 = 9



384 Well Plate Configuration
8 syringe modules



MODULE OPTIONS

Modules can be configured to suit instrument requirements. Some design elements of the modules (such as the guide posts and plunger mounting plate) are recommended for correct syringe operation.

It should be also noted that the plunger force activation for each syringe is approximately 1N. This should be considered in the instrument design.

SGE would be happy to discuss your design requirements.



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